



-1013 EcorI GAATTCATAAATGAACACGGCTGCAGGTGTAAAACTTCCTCCAGATTTTCGTAGGCTCCGTGTATAGCCATATAGTCAAGAAAAATACGTACGGGGGATTACAGG
-900 TCCTGACAAATGTACCCACGGAGCTCTGAACATACAACCACATGCGATCCCGGGGGTACATCGCGGGAGCTTAAGGTGCGGGCGGAAAGGTCACGTGACACCTACGGCCACCTGTGC
-780 ACCCAAGTGTGCGCTGGAGATGACGAATGTGGAGTGGTCTGGTGTAGCTGTACATCCAGCTGCTGTATGCCCTGTATGCCATAGCCCATAGCCCATCCCGGGCCAGGGTTTGCAGTC
-660 TCCATTTGGCTGATCTACGAGAACCTGGATTTCTCCGACGATCTATAAGCCCTGTGCAATGGCCATGGCATACATATGTACATCTCGGTATTTGAAAATCTGGATCCGAAAAACTG
-540 GTCTATGGCTCGTGTGCGATGCGCTGAACCAACCGCAACAAATTACTTACCTGTGTGTGATGGGTAAACACACATCACACACTTAGGCCATAGGATGCTCACCGTAGCCG
-420 CGGCTCCAAATCGCTTGAAGAAGTCTCTTAGATCTAGTGGAAACCTGCGGAGAAATGGCTTCGCCACGGGAGATCCGGCTGGGTGGAGCATGGGTGCTGGAGCTGACCCACCGG
-300 CATCATGATCGACCCGCTTCTCTTGGTACCTTCGTACCTTCGTGGCGGGCTCCAGGTGGCACTTCGTCTTCTTCTGAGCTGCTATCTGATAACTCTATGAGGACATTTCCCAATCTCCCG
-180 CCGATACCTGTTCCTGCACAACCGAGGTAGATGGACTTCTTCTCCATGTTGTCATCCAGGCGGGGACCCGCTGCTCTGTCCATTTGTCTGCAACAAAAGTGTGACTCACCA
-60 ACACCGCACCCCTGTACCTATTAAAGAGGATGCTGCCCTAGAAATCGGTGGCGAGACAAATGGAGGAGCCCTTGGCTGTGTGTCAGTACACCATCCAGAGCCCTGATCCATCTCACGGGT
5' END MetGluAlaAlaLeuLeuValCysGlnTyrThrIleGlnSerLeuIleHisLeuThrGly 20

61 GAAGATCC TGGTTTTTCAATGTTGAGATTCCGGAATTCCTATTTACCCACAGATGCAATGTTTGCACGGCAGATGCTCAATGTAACATATCAATTTCCGATGTCGGGGCGCAAAAAGCATCAA
GluAspProGlyPhePheAsnValGluIleProGluPheProPheTyrProThrCysAsnValCysThrAlaAspValAsnValThrIleAsnPheAspValGlyGlyLysLysHisGln 60

181 CTGTGATCTTGACTTTGGCCAGCTGACACCCCATACGAAGGCTGTCTACCAACCTCGAGGTGCATTTGGTGGCTCAGAAAAATGCCACCAATCTCTTTCTACTGGAGCTCCTTGGTGCAGGA
LeuAspLeuAspPheGlyGlnLeuThrProHisThrLysAlaValTyrGlnProArgGlyAlaPheGlyGlySerGluAsnAlaThrAsnLeuPheLeuLeuGluLeuGlyAlaGly 100

301 GAATTTGGCTCTAAGCTTCCAAATTAAGCTACCCAGAGAGGAGCAACAAGTAAGCCCTGGAAATCTGTAGATGCTACTTTCAGATGCTGTTTGGAAACCATGTGG
GluLeuAlaLeuThrMetArgSerLysLysLeuProIleAsnValThrThrGlyGluGlnGlnValSerLeuGluSerValAspValTyrPheGlnAspValPheGlyThrMetTrp 140

421 TCCACCATGCGAGAAATGCAAAACCCCGTGTACCTGATACCAGAAACAGTGGCATACATAAAGTGGGATAACGTAAATCTACCAATATACGGGCAGTAGTGAGGCACACAGGGGCTGGAT
CysHisHisAlaGluMetGlnAsnProValTyrLeuIleProGluThrValProTyrIleLysTrpAspAsnCysAsnSerThrAsnIleThrAlaValAlaArgAlaGlnGlyLeuAsp 180

541 GTCACGCTACCCCTTAAGTTTGCCAAGCTCAGCTCAAGACTCGAAATTCAGCGTAAAAACAGAAATGCTCGGTAAATGAGATAGATATTGAGTGTATTATGAGGATGCGCGAAAATTCACAA
ValThrLeuProLeuSerLeuProThrSerAlaGlnAspSerAsnPheSerValLysThrGluMetLeuGlyAsnGluIleAspIleGluCysIleMetGluAspGlyGluIleSerGln 220

661 GTCTGCCCCGGAGACAACAAATTTAATCATCACCCTGCGAGTGGATACGAGAGCCCATGTTCCCGAGCGCGGGAATCTTCACATCAACGAGTCCCGTGGCCACCCCAATACCTGGTACAGGGTAT
ValLeuProGlyAspAsnLysPheAsnIleThrCysSerGlyTyrGluSerHisValProSerGlyGlyIleLeuThrSerThrSerProValAlaThrProIleProGlyThrGlyTyr 260

FIG. 1A

FIG. 1B

FIG. 1C

3781 CCTGCTGGCCCGGATGAAGACCACAAC TGTGGACCTAGGCCCTCTATGCCCGCCACCCGAGGGTCATGGGCTCATGCTGTGGGGCAGCACCTCCCGTCCGGTCACGTC TCA TGTGGCAT
3901 CATCGATCCCGGCTACACGGGGGAAC TCCGGGTAA TCCTCCAGAA TCAGCGGGGTACAAC TCACCGCTGCCATCGGAGCTCAAAATCCACCTGGCTGGCTTCAGATA TGGCACCCCC
4021 CCAGATGGAGGAGGACAAGGGTCCCA TCAACCACCCCCAGTACCCCGGGGACGTGGGCCCTGGACGTC TCTTTGCCAAAGGACCTGGCCCCCTCTCCCCCATCAGACCGTCTCAGTGACACT
4141 CACCGTGGCCCCCCCCTTCTATCCCTCACCACAGGCCGACAA TCTTTGGCAGGTCCGGCCCTGGCCATGCAAGGTATTCTAGTGAAGCCCTGCAGGTGGCGCCGGGTGGGG TGGACGTCAG
4261 CCTGACCAACTT TAGTGACCAGACCG TGTTCCTTAACAAGTACCGGGCTTCGTGACGTTGTTACCTTCACAAGCACCACCTCACCTCCTCTACAGCCCCCACAGTGACGGGGGGT
4381 CCTTGGCCCCCAGATCTCTCTTTAGGTGGCCAGCTGCACCTTCGAGGAGGTGCCAGCCCTGGCCATGGGTGATAGTGGGTGAGCGAGCGCTCGAGGGAGACAGGGGAGGGGTTTGG
4501 ATCCTCGGGTCAATGACACCTTCATA TCCCTGT TTTACCAATAAATGTTTATTTGGTGGAGTC TGGTTGCTACGTTAACGGAGCTCCGTGGGCCCAGAGTGTCCGGCTGCCGCA
4621 CCACGGGAGCGGTGCAAGGACGGGGTGGGCACCTTCGGGCTCAAAGCGGAGTTGATGAAGGGGCCGAGGCTGAGGGGGCGGTACCGGATGAGACAAGCGCCGAGATCTCTTCGCCCC
4741 AGGCACCGGTC TCGTCCATCTTGAGCGCCGTGGCCACCTTCTCCATCTCCATCAGGGCCAGGCTGTCCGACGCCCTGTGTCAGCAGGGCCTTGAGGCCATTCTCGTCCA TCTCGATGC
4861 CGCTTACAGCCAGAGATCATGGTATTCCAGATGACTGAGGGCAAGGCCCTCAAGCTT HINDIII

FIG. 1D

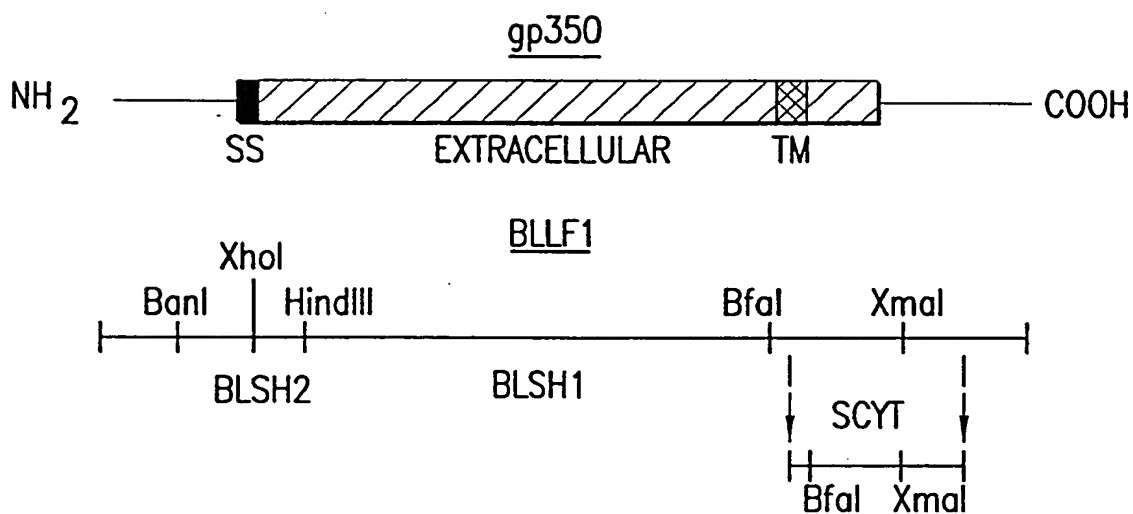


FIG. 2A

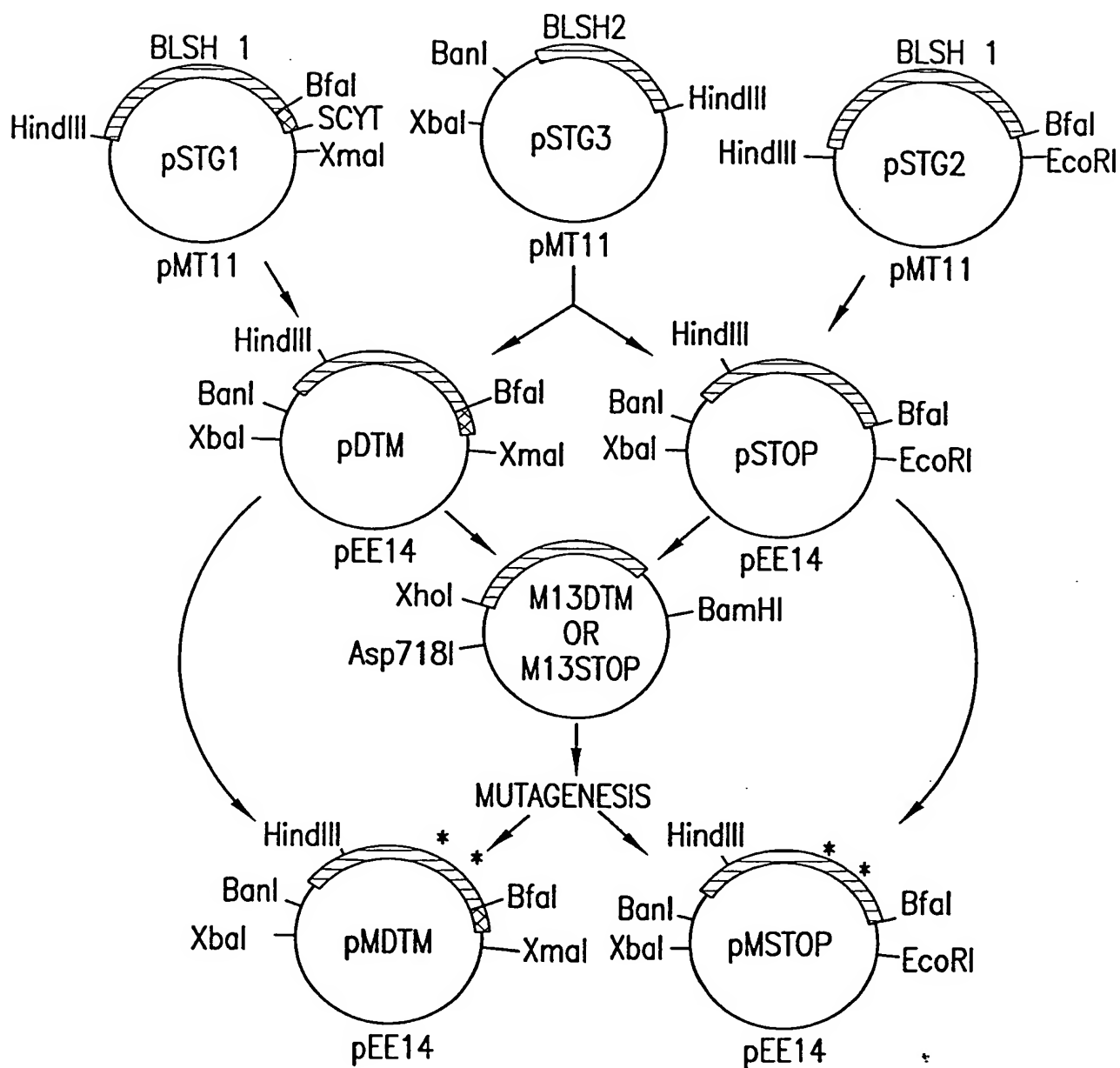


FIG. 2B

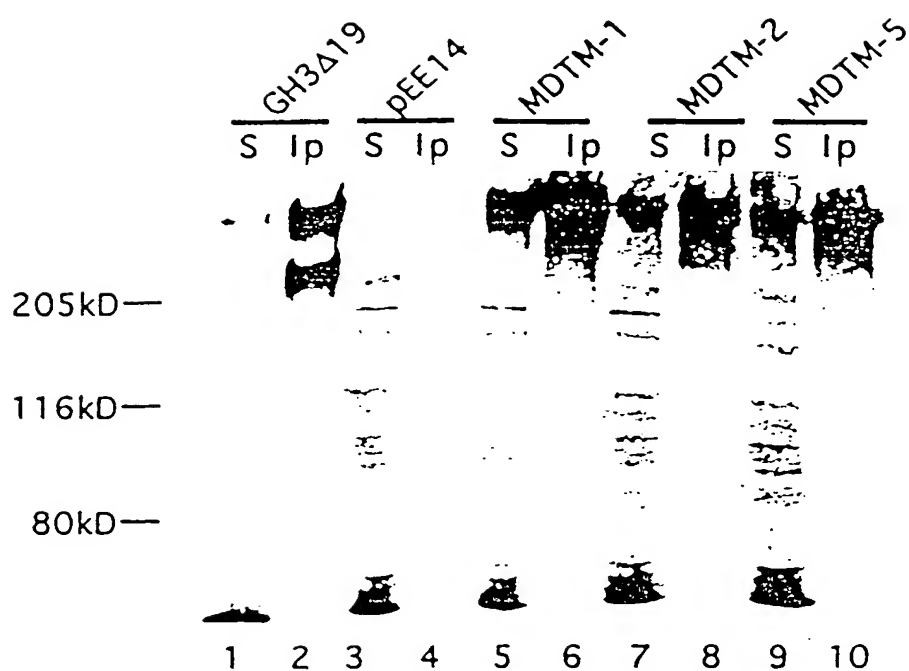


FIG.3